

AWARD/CONTRACT		1. This Contract Is A Rated Order Under DPAS (15 CFR 700)		Rating DOA5		Page 1 Of 6	
2. Contract (Proc. Inst. Ident) No. DAAE20-03-D-0150		3. Effective Date 2003JUL25		4. Requisition/Purchase Request/Project No. SEE SCHEDULE			
5. Issued By TACOM-ROCK ISLAND AMSTA-LC-CFA-C MICHAEL WENDLAND (309)782-3225 ROCK ISLAND IL 61299-7630		Code W52H09	6. Administered By (If Other Than Item 5) DCMA SPRINGFIELD BLDG 1 ARDEC PICATINNY NJ 07806-5000			Code S3101A	
e-mail address: WENDLANDM@RIA.ARMY.MIL		SCD C		PAS NONE		ADP PT HQ0337	
7. Name And Address Of Contractor (No. Street, City, County, State, And Zip Code) L-3 COMMUNICATIONS CORP L-3 SPACE AND NAVIGATION DIVISION 450 CLARK DRIVE BUDD LAKE, NJ. 07828-4300 TYPE BUSINESS: Large Business Performing in U.S.				8. Delivery <input type="checkbox"/> FOB Origin <input checked="" type="checkbox"/> Other (See Below) SEE SCHEDULE			
				9. Discount For Prompt Payment			
				10. Submit Invoices (4 Copies Unless Otherwise Specified)		Item 12	
Code 1NZ85				Facility Code		To The Address Shown In:	
11. Ship To/Mark For SEE SCHEDULE		Code	12. Payment Will Be Made By DFAS COLUMBUS CENTER NORTH ENTITLEMENT OPERATIONS PO BOX 182266 COLUMBUS OH 43218-2266			Code HQ0337	
13. Authority For Using Other Than Full And Open Competition: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)()			14. Accounting And Appropriation Data				
15A. Item No. SEE SCHEDULE	15B. Schedule Of Supplies/Services CONTRACT TYPE: Firm-Fixed-Price		15C. Quantity	15D. Unit	15E. Unit Price	15F. Amount	
			KIND OF CONTRACT: Supply Contracts and Priced Orders Service Contracts				
Contract Expiration Date: 2009DEC30				15G. Total Amount Of Contract		\$0.00	
16. Table Of Contents							
(X)	Section	Description	Page(s)	(X)	Section	Description	Page(s)
Part I - The Schedule				Part II - Contract Clauses			
X	A	Solicitation/Contract Form	1		I	Contract Clauses	
X	B	Supplies or Services and Prices/Costs	5	Part III - List Of Documents, Exhibits, And Other Attachments			
	C	Description/Specs./Work Statement			J	List of Attachments	
	D	Packaging and Marking		Part IV - Representations And Instructions			
	E	Inspection and Acceptance			K	Representations, Certifications, and Other Statements of Offerors	
	F	Deliveries or Performance			L	Instrs., Conds., and Notices to Offerors	
	G	Contract Administration Data			M	Evaluation Factors for Award	
	H	Special Contract Requirements					
Contracting Officer Will Complete Item 17 Or 18 As Applicable							
17. <input type="checkbox"/> Contractor's Negotiated Agreement (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				18. <input checked="" type="checkbox"/> Award (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.			
19A. Name And Title Of Signer (Type Or Print)				20A. Name Of Contracting Officer VICKI AHLGRIM AHLGRIMV@RIA.ARMY.MIL (309)782-3220			
19B. Name of Contractor By _____ (Signature of person authorized to sign)		19c. Date Signed		20B. United States Of America By _____ /SIGNED/ (Signature of Contracting Officer)		20C. Date Signed 2003JUL25	
NSN 7540-01-152-8069 PREVIOUS EDITIONS UNUSABLE				25-106 GPO : 1985 0 - 478-632		Standard Form 26 (Rev. 4-85) Prescribed By GSA-FAR (4.8 CFR) 53.214(a)	

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SECTION A - SUPPLEMENTAL INFORMATION

The purpose of this contract is to award the IPADS requirements on a Long-Term Requirements-type contract for one year of test and 5 years of production hardware. The solicitation DAAE20-02-R-0177 and 3 amendments are hereby incorporated as part of the contract. This award is for the L-3 configuration of IPADS per revised proposal dated 17 Jul 03 with the below listed changes incorporated.

1. Be advised that the Government desires the following Performance Enhancements (at no cost) (Table 2.8-3 of Technical Proposal)
 - Digital Map feature.
 - Waypoint Navigation feature.
 - Embedded Operators Manual feature.
 - Emulator feature
2. Make inaccessible to the operator the following no cost enhancements:
 - Area Point Filters.
 - HTU and FOS software.
 - EPLRS communications.
 - Survey calculator functions.
3. Incorporate appropriate lifting, battery low temperature limitations, CDU low temperature Cautions in Technical Manuals.
4. Correct two-position azimuth accuracy.
5. Correct horizontal position accuracy.
6. Battery Charger Unit - Add battery heater (reference IFD8)
 - Be advised the Battery Approval Form has not been submitted to CECOM for approval. This will be done after award to conserve resources.
7. IPADS Transit Case -
 - Add handles to allow 6 person lift/carry (reference IFD 13)
 - Add skids to bottom of case (reference IFD15)
8. Add Porro Prism Illumination - reference IFD17
9. Software Changes -
 - Software modification to allow initialization at a point farther than 100 meters from where it was last turned off (see L3 correspondence dated 8 May 2003, L-3S&N Responses to Government Clarifications)
 - Gravity compensation
 - Kalman filter states for gravity and instrument misalignment.
 - OS to EOL Az - reference IFD9
 - Observations on Bid Sample - reference L3 correspondence dated 24 April, L3S&N Responses to Government Observations.
10. L-3 has offered to perform software FQT and allow the Government to witness. The Government does wish to witness this test.
11. The Tadiran CDU per L-3 proposal is the Government selected version for this contract.
12. The sealed lead-acid battery P/N ABP-BT-24V/1.9 AH-1 per L-3 proposal is the Government selected version for this contract.
13. The battery charger unit shall have the 25VDC detector and switch incorporated.

Observation 1. System was unable to remote transfer-in to close and adjust survey. The operator stated the system was not programmed to close and adjust survey remotely, only when the vehicle can drive over the update SCP. MIL-PRF-52955C, 3.3.6.4 requires IPADS to adjust data based on a position update. There is no limitation on the transfer method for inputting the update SCP coordinates. 3.4.5.c requires an interface to transfer coordinates from an offset SCP.

L-3S&N response: The L-3S&N CATS software already includes both the Adjust and Position update using remote interface. The solution is to simply link the two functions together into a single operation and display it accordingly. Linking the two functions is a simple, easy to implement extension of the organic capabilities.

Observation 2. Comment only. Closure or change not necessary.

Observation 3. System does not conduct update and adjustments as one function. Currently these are two separate functions. These should be accomplished simultaneously.

L-3S&N response: We believe that this is related to Observation 1, above. L-3S&N will include the capability that accomplishes

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adjustment and update simultaneously as part of the above-mentioned modification.

Observation 4. System does not mark and save data as one function. These should be one function.

L-3S&N response: L-3 has already incorporated this function and demonstrated it on the testing on the East-West course.

Observation 5. The system appears to assign the same SCP and MARK identifiers from mission to mission, e.g."URK0008". MIL-PRF-52955C, 3.4.4.3. k and q require unambiguous identifiers. Using the same identifier for different physical points runs the risk of unintentionally overwriting an existing point in the FOS database.

L-3S&N response: L-3S&N can easily accommodate this with a minimum of effort and no risk.

Observation 6. The system appears to change the SCP and/or MARK identifier after closure adjustment, e.g."URK0008" to "MRK0008". The identifiers must remain the same. It is intended that adjusted data sent to FOS will replace any unadjusted data in the FOS database, for that identifier. If the identifier is changed, FOS will end up with two different entries for the same physical point.

L-3S&N response: Prior to receipt of the RFP, the CATS were mechanized so that adjusted data replaced unadjusted data. This was caused by our initial misinterpretation of the RFP requirement that led us to believe that both unadjusted and adjusted data must be retained. L-3S&N can easily accommodate this with a minimum of effort and no risk.

Observation 7. There appears to be a mismatch between Mark Identifier index number and Azimuth index number. They should be the same.

L-3S&N response: This is a simple mechanization that is readily corrected with a minimum of effort and no risk.

Observation 8. AFATDS Simulation Mode doesn't appear to be applicable to IPADS.

L-3S&N response: L-3S&N will remove this mode from the options list with minimum effort and no cost or schedule impact.

Observation 9. While not a requirement, latitude and longitude in decimal degrees should display hemispheres in the same format as with D/M/S.

L-3S&N response: Understood. This simple adjustment will be implemented immediately ARO.

Observation 10. Current Plumb Bob Data always appears to be displayed as UTM even when SCP data is displayed in other formats. This seems counter-intuitive.

L-3S&N response: This adjustment is readily implemented and is the default condition when the format is permanently selected using the Options screen. We believe that this Observation refers to a temporary (special function key "F5") display condition that changes the format on special screens (e.g. Mark screen) but leaves the Current Plumb Bob Data format unchanged. This adjustment will be implemented immediately ARO.

The L-3 IPADS shall be in compliance with the specifcations and scope in the solicitation. The following list of changes/waivers to the specification are hereby incorporated.

The following are changes to the specification MIL-PRF-52955C:

- a. Page 6, Table 1: Change to
Table 1 - IPADS performance requirements.Latitude of Operation0 - 65 N/S65 -75 N/SSurvey OrderHighLowerHighLowerInitialization Time (minutes)10.010.020.020.0Hot Start Initialization Time (minutes)5.05.010.010.0Zero-velocity update interval (minutes)5.010.05.010.0Horizontal position (meters)CEP4.07.04.07.0Ground Vehicle99% radial errors10.418.210.418.2Horizontal position (meters)CEP8.0-8.0-Helicopter99% radial errors20.8-20.8-Altitude (meters-PE)PE2.03.02.03.0Ground & Helicopter99% errors7.811.77.811.7Azimuth error (mils-PE) PE0.40.40.60.6Ground & Helicopter99% errors1.61.62.32.3
- b. Page 7, 3.3.10.1: Change to The mean time to update or establish horizontal position and altitude shall not exceed 5 minutes using the drivers interface (3.4.5.a.) The mean time to update or establish horizontal position and altitude shall not exceed 15 minutes using the offset interface (3.4.5.c.) The duration includes the time to perform all crew actions required to establish, physically mark, and record the position.

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c. Page 7, 3.3.10.2: Change to The mean time to establish horizontal position, altitude and azimuth shall not exceed 20 minutes using the two-position method or offset interface (3.4.5.b, c, and d.) The duration includes the time to perform all crew actions required to establish, physically mark, and record the azimuth and the positions of both ends of the Orienting Line (OL).

The following are waivers to the specification for this solicitation:

d. Page 7, 3.3.11: Change to Back-up power. IPADS shall include a rechargeable battery that will automatically sustain IPADS operation for not less than 15 minutes after loss of external power at ambient temperatures 0 F (-18 C) and above. When IPADS is powered on at an ambient temperature of -50 F (-46 C), the battery shall sustain IPADS operation for not less than 5 minutes after loss of external power. When IPADS has been externally powered for 45 minutes or longer at an ambient temperature of -50 F (-46 C), the battery shall sustain IPADS operation for not less than 15 minutes after loss of external power.

e. Page 13, 3.5.1: Change to Operating conditions. The IPADS operating ambient temperature range shall be -50 F (-46 C), with negligible solar energy, to +125 F (+52 C), with solar radiation to 360 BTU per square foot, per hour. If easily replaceable by personnel wearing arctic clothing, the Control and Display Unit, only, may have an operating ambient temperature range from -22 F (-30 C), with negligible solar energy, to +125 F (+52 C), with solar radiation to 360 BTU per square foot, per hour.

f. Page 14, 3.5.2: Change to Storage conditions. The IPADS storage ambient temperature range shall be -50F (-46 C) to +160 F (71 C) in and out of transit cases. If easily replaceable by personnel wearing arctic clothing, the Control and Display Unit, only, may have an operating ambient temperature range from -40 F (-40 C) to +160 F (71 C) in and out of transit cases.

g. Page 38, 4.6.3.5: Change to Low temperature storage. IPADS, in its transit case, and LRUs, in their transit cases, shall be tested in accordance with MIL-STD-810, Method 502.4, Procedure I, at the low temperature storage limit(s) specified in 3.5.2, for at least 24 hours after achieving temperature stabilization."

h. Page 38, 4.6.3.6: Change to Low temperature operation. IPADS shall be tested in accordance with MIL-STD-810, Method 502.4, Procedure II, at the low temperature operating limit(s) specified in 3.5.1. After achieving temperature stabilization, IPADS shall be turned on and operated for six hours. Forty-five minutes after turning on external power, external power shall be turned off and IPADS operated on its backup battery for 15 minutes

Pricing for the periods of performance are provided as attached.

There is a 5-Year warranty as described in the Statement of Work.

The Small Business Subcontracting Plan shall be approved within 30 days of award.

*** END OF NARRATIVE A 001 ***

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	<p>SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS</p> <p><u>IPADS TEST SUPPORT</u></p> <p>NOUN: TEST UNITS/SUPPORT/TM'S/TRNG SECURITY CLASS: Unclassified</p> <p>SEE SPEC. AND SOW SUPPORT SHALL CONSIST OF THE FOLLOWING:</p> <p>8-13 EACH TEST UNITS 1 EACH MOCK-UP IPADS - IAW SOW PARA. 3.2.2 SOFTWARE UPDATE - IAW SOW PARA. 3.2.3 REPROGRAMMING CABLES - IAW SOW PARA. 3.2.1 INSTALLATION HARDWARE - 8-13 EA. FOR HMMWV/2 EA. FOR SUSV/4 EA. FOR UH-60 IAW SOW PARA. 3.2.1 TECHNICAL SUPPORT - IAW SOW PARA. 3.4 LRU TRANSIT CASES - 4 SETS IAW SOW PARA.3.2.1</p> <p>TRAINING - IAW SOW PARA. 3.8</p> <p>TECHNICAL MANUALS - IAW SOW PARA. 3.9</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p>				\$ ** NSP **
0002	<p><u>IPADS TEST UNIT REFURBISHMENT</u></p> <p>NOUN: REFURBISHMENT OF TEST UNITS SECURITY CLASS: Unclassified</p> <p>SEE SOW AND SPEC</p> <p>REFURBISHMENT SHALL BE COMPLETED AS FOLLOWS: 8 EACH - 90 DAYS AFTER RECEIPT OF TEST UNITS 0-5 EACH - 120 DAYS AFTER RECEIPT OF TEST UNITS</p> <p>(End of narrative B002)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p>				\$ ** NSP **

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	<p><u>IPADS HARDWARE</u></p> <p>NOUN: IPADS HARDWARE WITH 5-YEAR WA SECURITY CLASS: Unclassified</p> <p>SEE SPEC AND SOW</p> <p>DELIVERY SHALL BE IAW THE DELIVERY ORDERS</p> <p>BEGINNING 180 DAYS AFTER ISSUANCE OF THE DELIVERY ORDER WITH DELIVERY OF 20 UNITS PER MONTH</p> <p>(End of narrative B001)</p> <p><u>Packaging and Marking</u></p> <p><u>Inspection and Acceptance</u> INSPECTION: Origin ACCEPTANCE: Origin</p> <p>FOB POINT: Origin</p>		EA	\$ ** N/A **	
0004	<p><u>INSTALLATION HARDWARE KITS</u></p> <p>NOUN: INSTALLATION HARDWARE KITS SECURITY CLASS: Unclassified</p> <p><u>Packaging and Marking</u></p> <p><u>Inspection and Acceptance</u> INSPECTION: Origin ACCEPTANCE: Origin</p> <p>FOB POINT: Origin</p>		KT	\$ ** N/A **	